



WORLD
in Stockholm,
August 17-23, 2008
WATER
WEEK

Presentation

Presentation from the 2008 World Water Week in Stockholm

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SECRETARIAT OF THE CONVENTION TO COMBAT DESERTIFICATION
SECRETARIA DE LA CONVENCION DE LUCHA CONTRA LA DESERTIFICACION

CCD

Improving food security through sustainable land management

World Water Week
Stockholm - 17 August 2008

Luc Gnacadja

Executive Secretary

United Nations Convention to Combat Desertification - UNCCD



Summary

Introduction : Recalling some definitions

1. Results/Impacts of land degradation
2. The food crisis : A harsh wake-up call
3. Land as a carbon sink: new possibilities
4. A long-term strategy for food security:
The UNCCD Strategy & Ways forward

Conclusion



Recalling few Definitions

“Land degradation is defined as a long-term decline in ecosystem function and productivity and measured in terms of net primary productivity (NPP)”

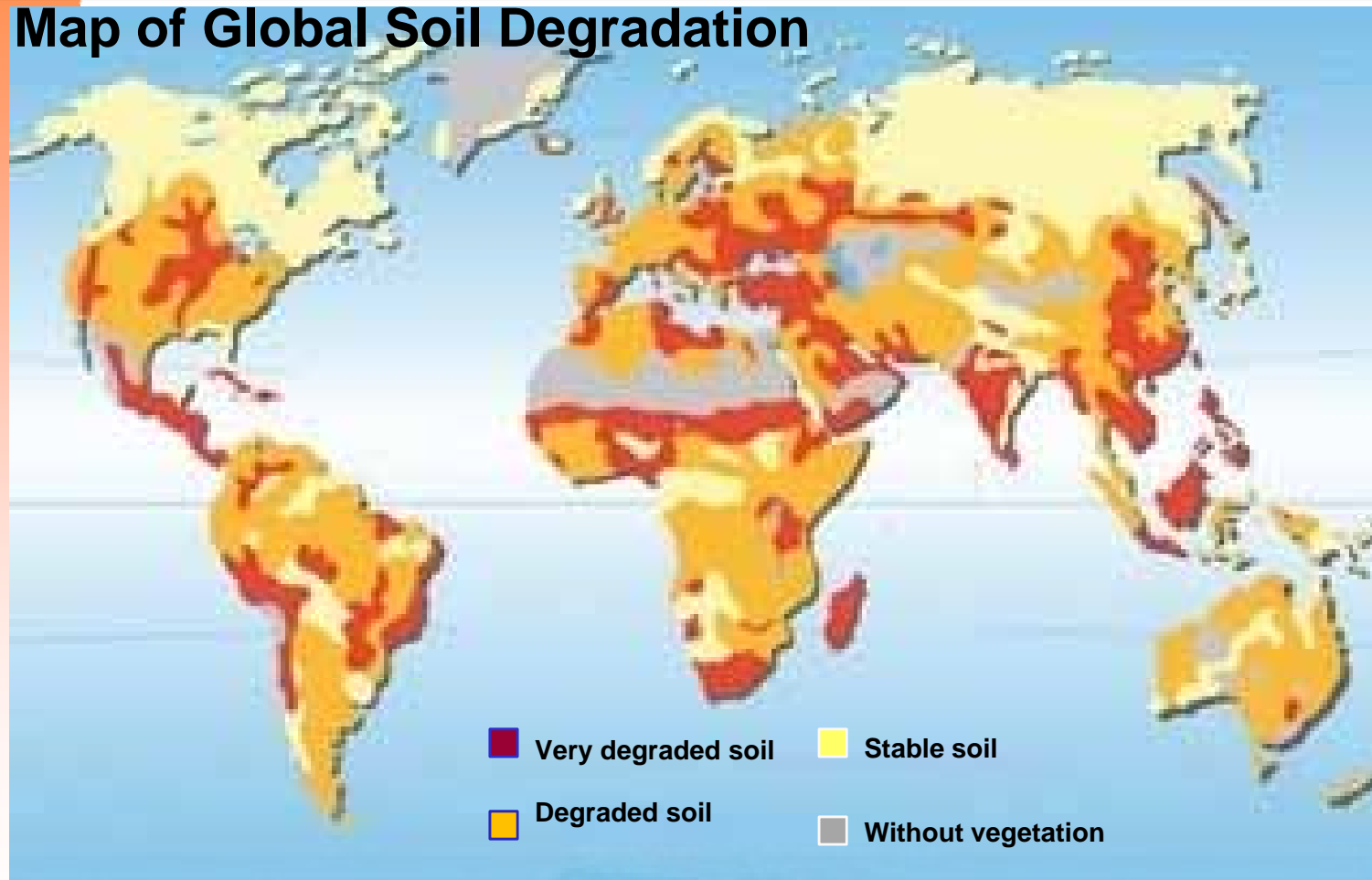
(Cf. GLADA – Global Assessment of Land Degradation & Improvement)

“Desertification means land degradation in arid, semi-arid and dry sub-humid areas resulting from various factors” (Cf. the UNCCD)



Soil degradation is an under-recognized threat to global well-being which will be aggravated by climate change

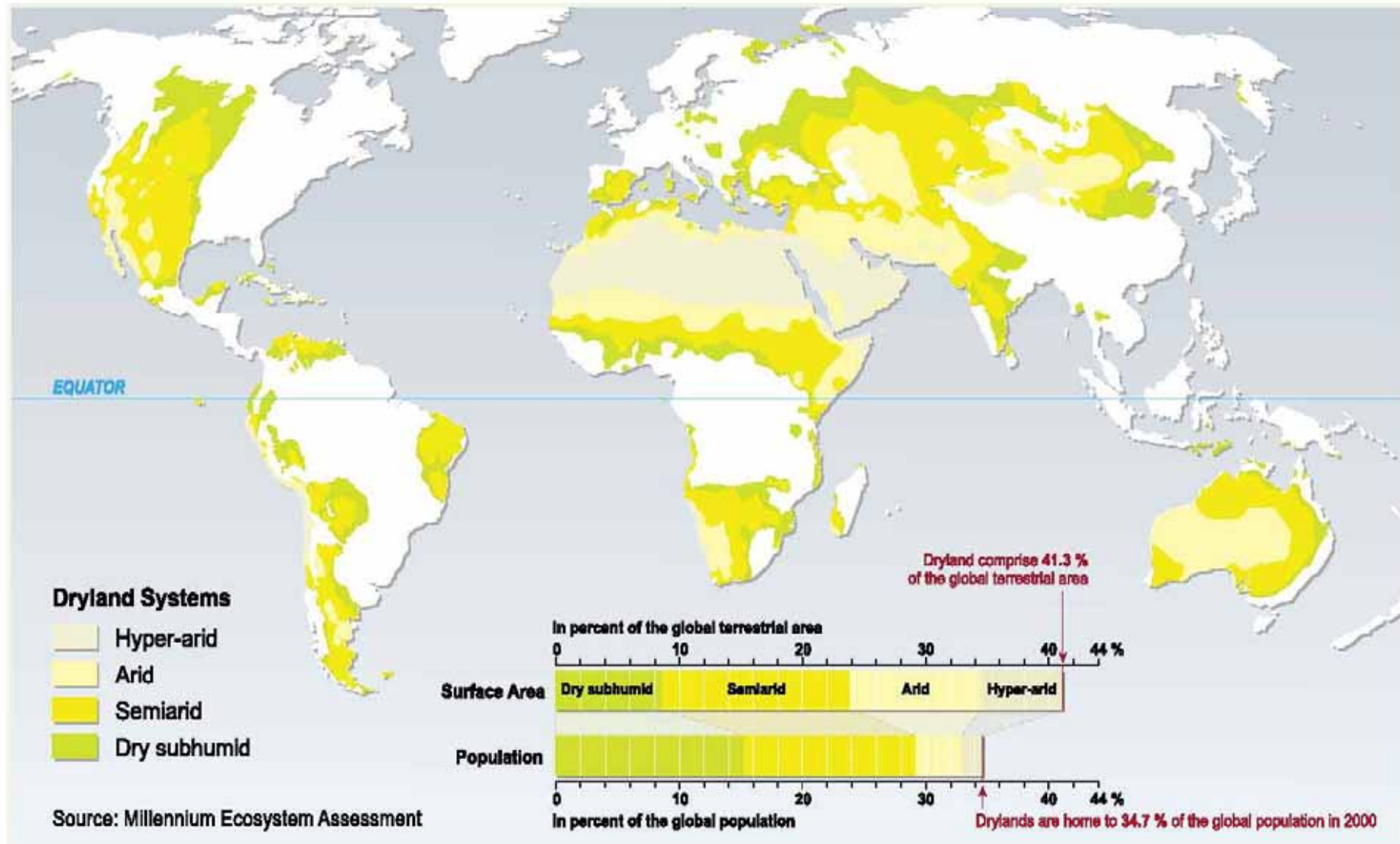
Map of Global Soil Degradation



*From UNEP/GRID–Arendal Maps and Graphics Library
(http://maps.grida.no/go/graphic/global_soil_degradation).*

The Drylands =

41,3% of the global terrestrial area – 34,7 % of the global Population





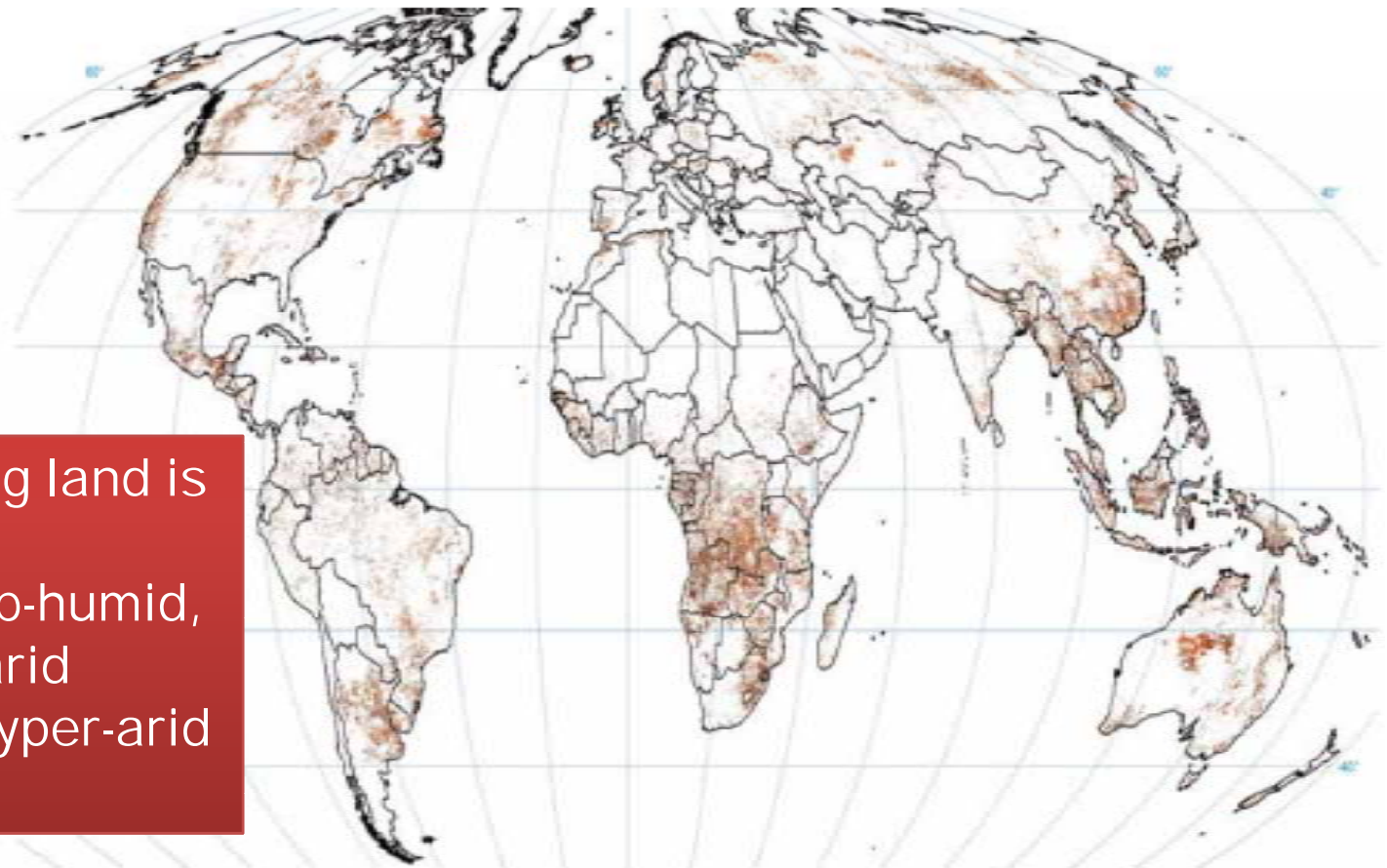
Results/Impacts of Land Degradation

Land degradation is cumulative

- In 1991, 15 % of the land surface was degraded according to the Global assessment of soil degradation (GLASOD);
- The 24 % identified by the Global assessment of land degradation & improvement (GLADA) hardly overlaps with that of GLASOD. (Cf. GLADA Report 2008/01)
- “This implies that land degradation over the past 23 years (1981-2003) has mainly affected new areas; while some areas of historical land degradation have been so severely affected that they are now stable at stubbornly low levels of productivity.”
(in GLADA Report 2008/01)

Land degradation is occurring in prime land (cropland & forests)

Global land degradation using biomass production & rain-use efficiency trends between 1981-2003



- 78 % of degrading land is in humid regions
- 8 % in the dry sub-humid,
- 9 % in the semi-arid
- 5 % in arid and hyper-arid regions

Source: Bai and others 2007

Land Degradation: Facts & Figures

(from

Land Degraded or lost
crop productivity

20 million

Total land
affected

1.9 billion ha
of land worldwide

Loss of potential productivity
due to soil erosion is
estimated as
equivalent to some
20 million tons of
grain per year

One third
of the world's cropland
has been abandoned in

10 years
erosion has
productive

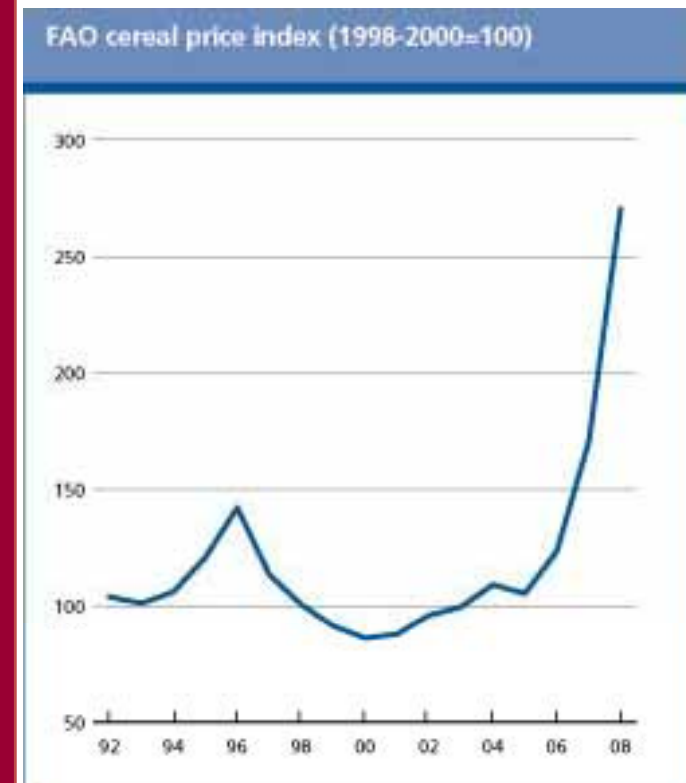
increasing
has been

estimated at
30 to 35 times the
historical rate

The food crisis : a “harsh wake-up call”

Global food system under stress:

- 50% growth required in food production by 2030 (Cf. FAO)
- But arable lands are shrinking due to the combine effects of Land Degradation & Climate change
- Arable land is being lost is increasing and has been estimated at 30 to 35 times the historical rate (IFAD)
- 1,9 billion ha or 22% of land worldwide degraded since 1950
- Soaring of food prices
- Hunger: 854 million people are in a systemic food insecurity and more than 25.000 people/day die from hunger or related illness



“The geography of poverty and hunger in rural areas coincides with that of degraded lands.”



**Land degradation is
a long term challenge
for increasing
food production**

Land degradation is predictable & reversible

Drought & desertification are predictable
Land degradation is reversible

To a large extent, their severe socio-economic impacts on affected populations livelihood are the result of public and even global policy failures

1. Failure to converge from the global to the local (through strategic partnerships)
2. Failure to mainstream at the national level
3. Failure to diffuse the available information & knowledge
4. Failure to disseminate & upscale the good practices
5. Failure to mobilize the required resources

- A long-term strategy to address food security is to increase the productivity of land, and to make sustainable agriculture a priority through pro-poor policies thus improving the adaptation to and mitigation of climate change.

Land degradation & Carbon fixation

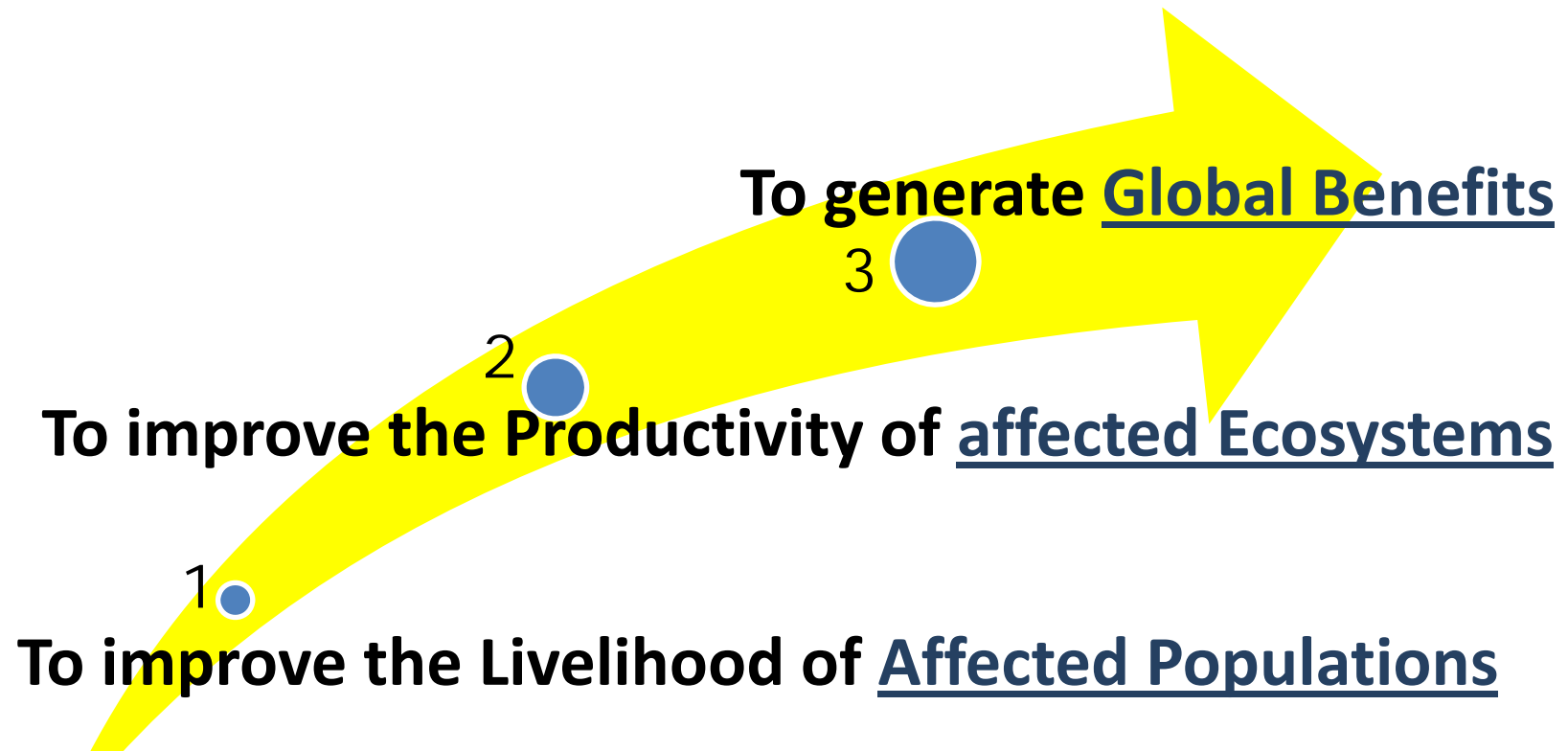
- In terms of Carbon fixation, degrading areas relative to 1981-2003 represent 956 million tonnes of Carbon ***not removed from the atmosphere*** –
 - Equivalent to 20 % of the global CO₂ emissions for 1980
 - Equivalent to 48 billion U\$ in terms of lost C fixation (\$50/tonneC)
- “But the cost of land degradation is at least an order of magnitude greater in terms of C emissions from loss of soil organic carbon: as much as one third of the human-induced increase in atmospheric CO₂ and 20% of global emissions over the period 1989-1998 is related to land use” (Cf. IPCC 2000, Houghton 2008, in GLADA report 2008/01)

Land as a carbon sink is an untapped potential in addressing Climate change

“Reforming policies to combat desertification represents one of the world’s most expedient ways to sequester more atmospheric carbon and help address the climate change issue”

Zafar Adeel, Director of the UNU – INWEH

Strategic objectives of the UNCCD, 2008-2018



4 To mobilize resources to support implementation of the Convention through building effective partnerships between national and international actors

Way out, Way forward

1. Create financial incentives for pastoralists and other dryland users to preserve and enhance the ecosystem services their land provides to all;
2. Accept the carbon sequestration as a measure for simultaneously combating desertification and climate change;
3. Foster alternative, sustainable livelihoods for dryland dwellers, including non-agricultural jobs;
4. Yield ownership and decision making to communities: empower them to take charge of land on which they depend and end the pattern of individuals chasing environmentally detrimental short-term gains;

Recommendations extracted from a report on desertification compiled by a UNU group of experts in June 2007 based on inputs of 200 experts from 25 countries convened in Algiers in 2006

Way out, Way forward ...

5. Promote greater transparency and accountability, the participation of multiple actors, information sharing, measurable results, and follow-up systems;
6. Better educate local populations and policymakers;
7. Put science at the heart of policy making and beef up research on emerging issues such as thresholds or "tipping points" as they relate to migration and desertification;
8. Improve coordination at all levels;

Way out, Way forward ...

9. **Nationally:** harmonize policies dispersed across a range of government ministries and agencies; rationalize and link the wide assortment of development, poverty reduction and environmental policy frameworks;
10. **Regionally:** to help address transboundary issues such as integrated river basin management and environmental migration;
11. **Internationally:** better relate global conventions, agreements and other initiatives one to another. More synchronization, more synergy and strategic partnerships are needed to achieve broad social and environmental goals.



In Conclusion ...

Let us not forget the following warning,
a five thousand years old wisdom:

“Upon this handful of soil our survival depends. Husband it and it will grow our food, our fuel, and our shelter and surround us with beauty. Abuse it and the soil will collapse and die, taking humanity with it”.

From Vedas Sanskrit Scripture – 1500 BC

Feed Me to Feed You



World Day to Combat Desertification
17 June